pharmaceutics

MDPI

Supporting Information

Optimizing Solvent Selection and Processing Conditions to Generate High Bulk-Density, Co-Precipitated Amorphous Dispersions of Posaconazole

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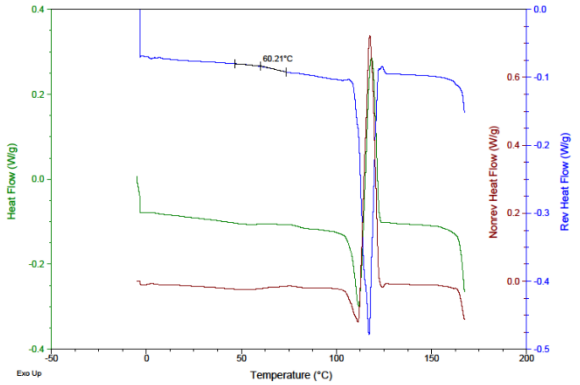

Figure S1. mDSC of Form III posaconazole showing contamination by amorphous posaconazole, apparent by its T_g at 60 °C.

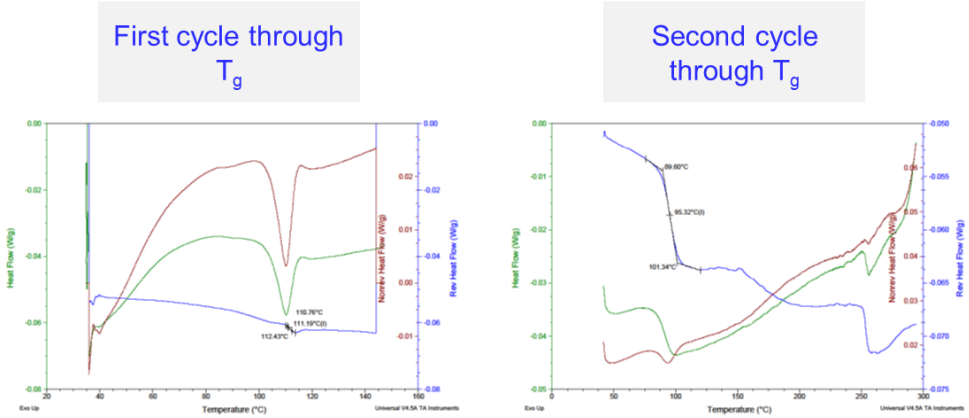

Figure S2. Thermogram through T_g for posaconazole/HPMCAS dispersion generated by precipitation from MEK into *n*-heptane before (first cycle) and after (second cycle) heating to 150 °C.

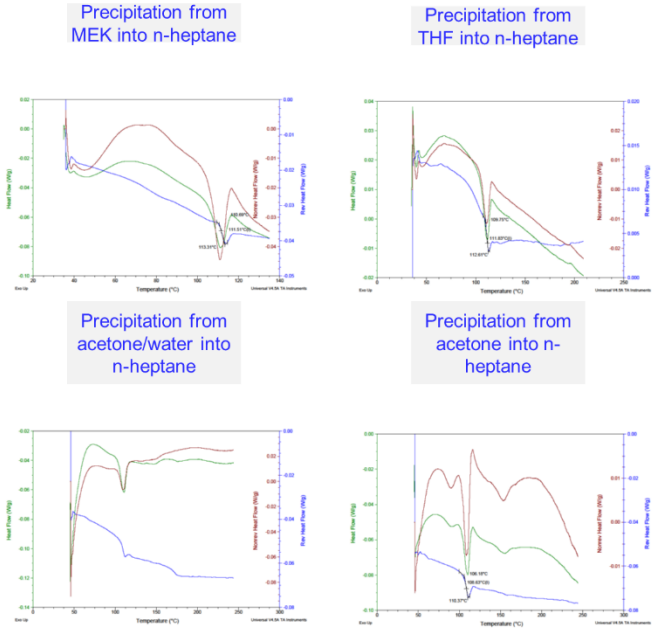

Figure S3. Posaconazole/HPMCAS co-precipitates generated using *n*-heptane as anti-solvent.

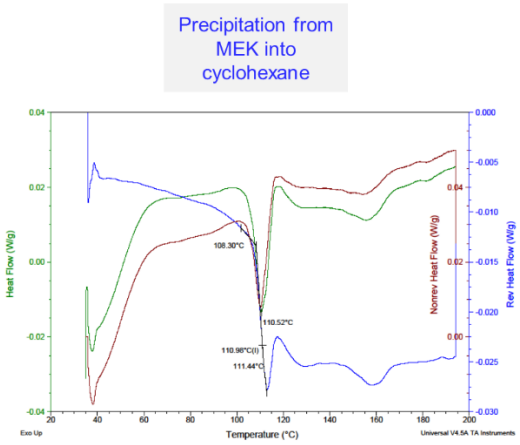

Figure S4. Posaconazole/HPMCAS co-precipitate generated using cyclohexane as anti-solvent.

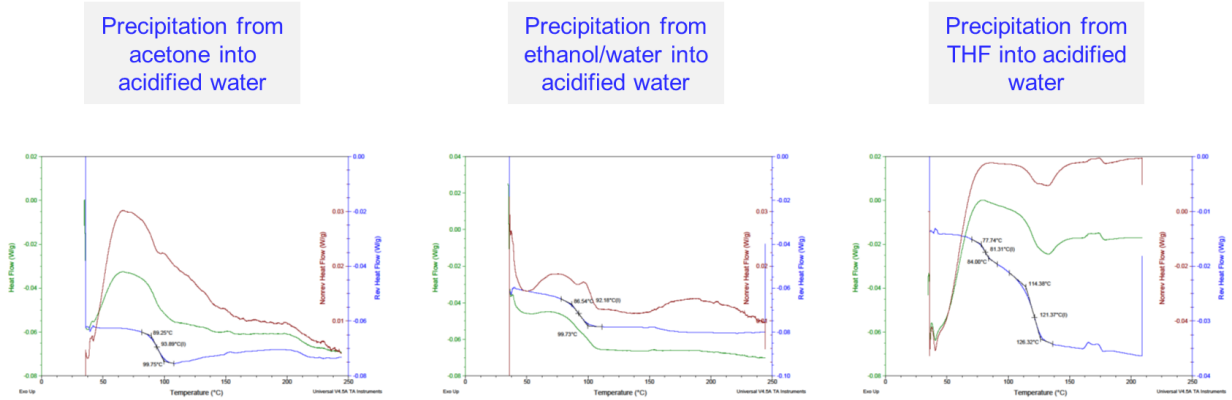

Figure S5. Posaconazole/HPMCAS co-precipitates generated using 0.001 N HCl as anti-solvent.

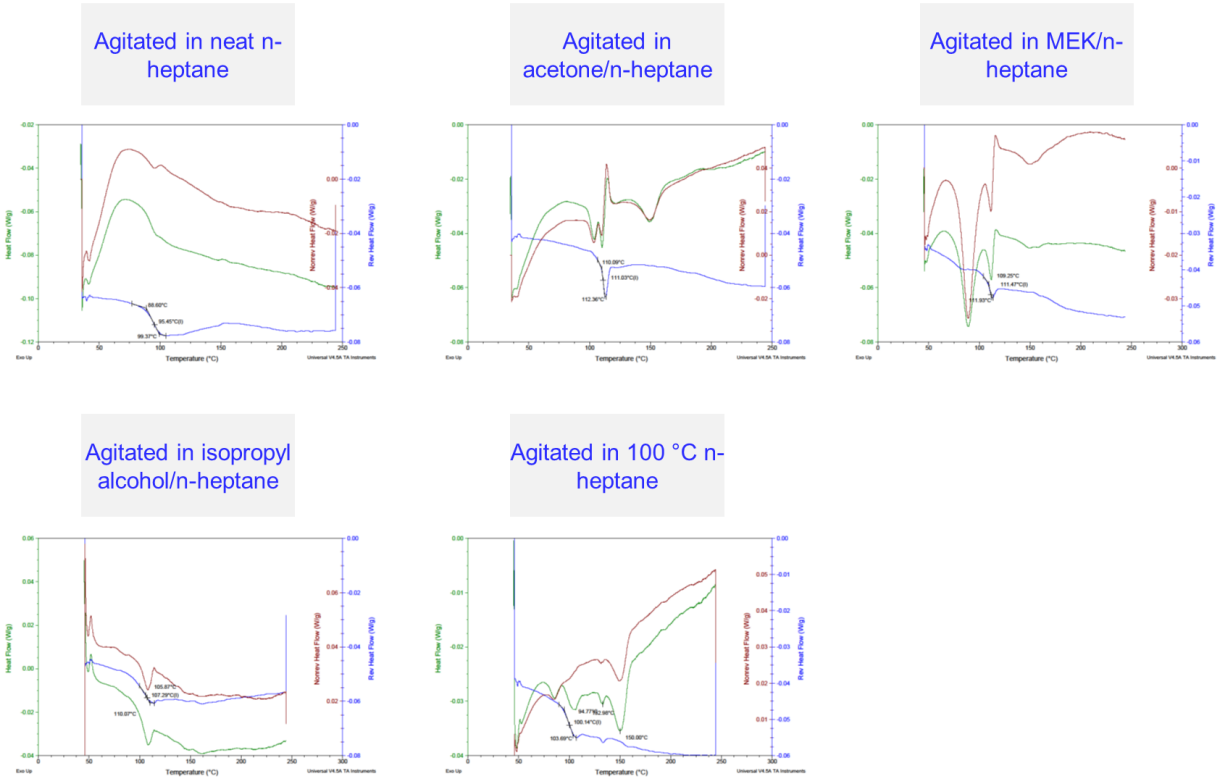

Figure S6. Amorphous posaconazole cPAD re-suspended in *n*-heptane and binary solvent mixtures.

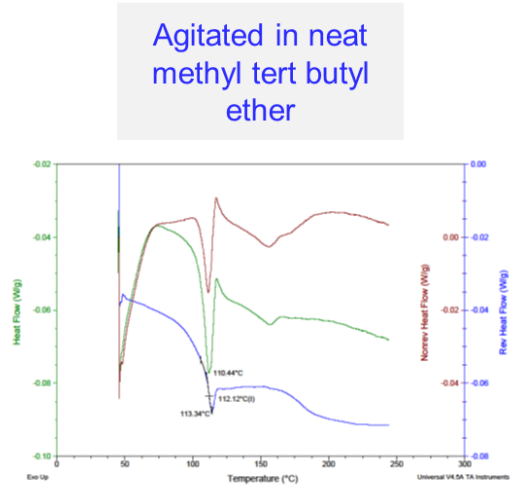

Figure S7. Amorphous posaconazole cPAD re-suspended in MTBE.

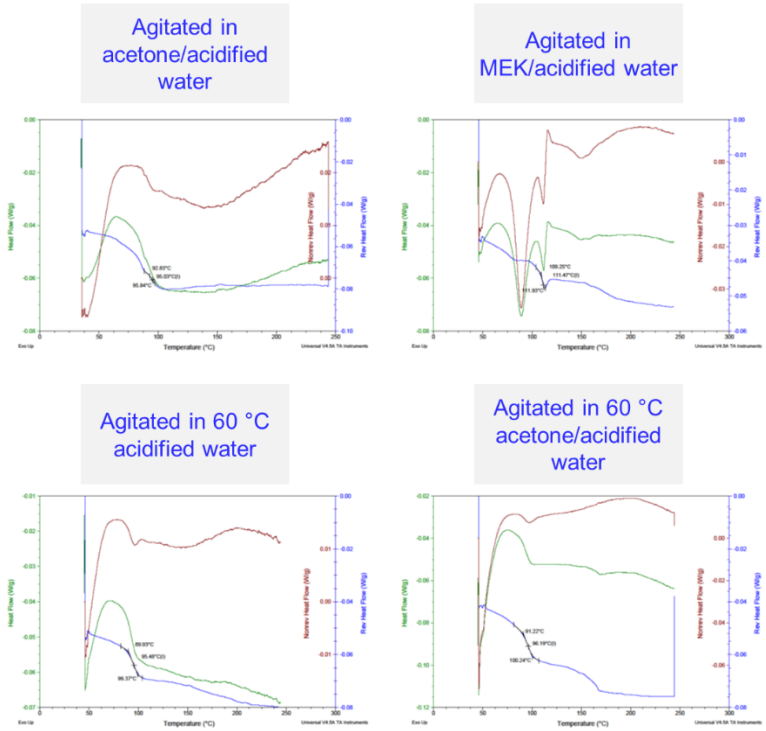

Figure S8. Amorphous posaconazole cPAD re-suspended in 0.001 N HCl and binary solvent mixtures.

Dynochem prediction

Activity coefficients of acetone in binary solvent mixtures in a) water and b) *n*-heptane as predicted in Dynochem using the NRTL feature.

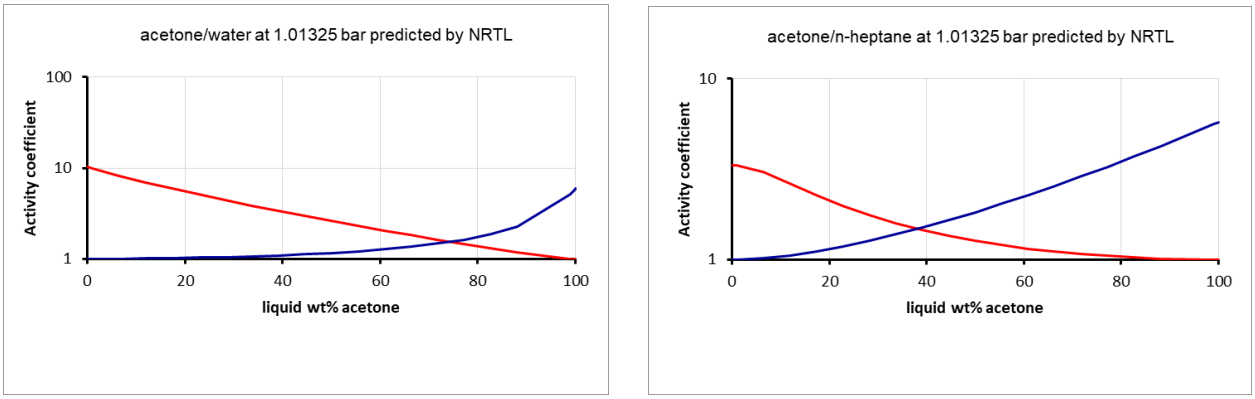

Figure S9. Activity coefficients of acetone in binary solvent mixtures in a) water and b) *n*-heptane as predicted in Dynochem.

Scanning electron microscopy

Particle morphology was assessed by scanning electron microscopy using a Tabletop Microscope TM3030 (Hitachi High-Technologies Co., Tokyo, Japan) at 15 kV acceleration voltage.

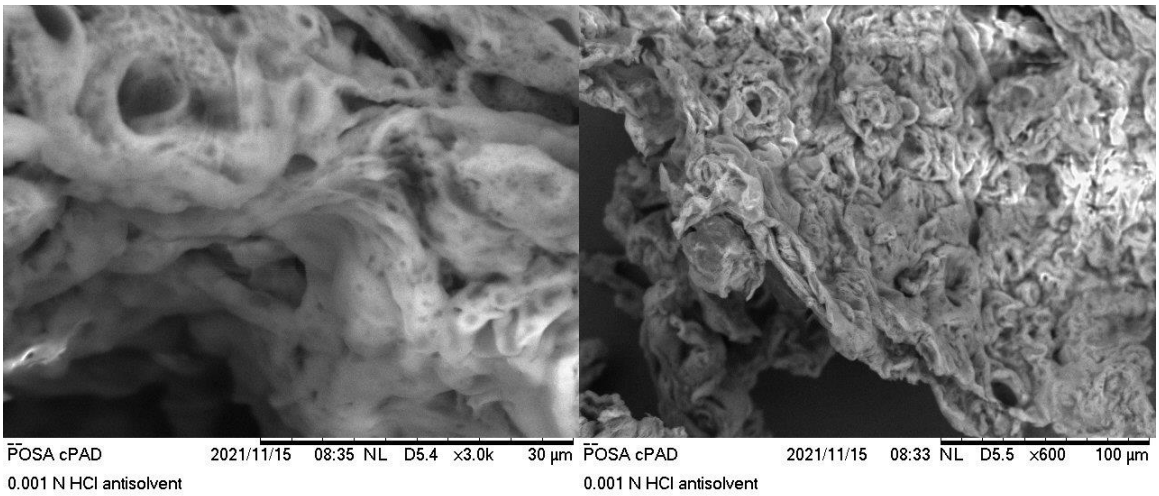

Figure S10. Scanning electron microscopy of posaconazole cPAD generated by precipitation into 0.001 N HCl.

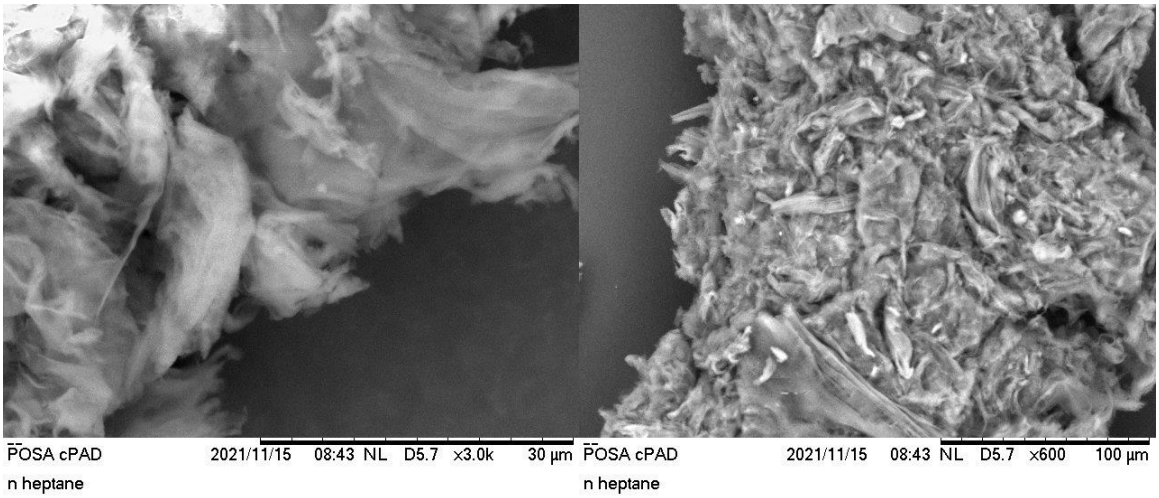

Figure S11. Scanning electron microscopy of posaconazole cPAD generated by precipitation into *n*-heptane.

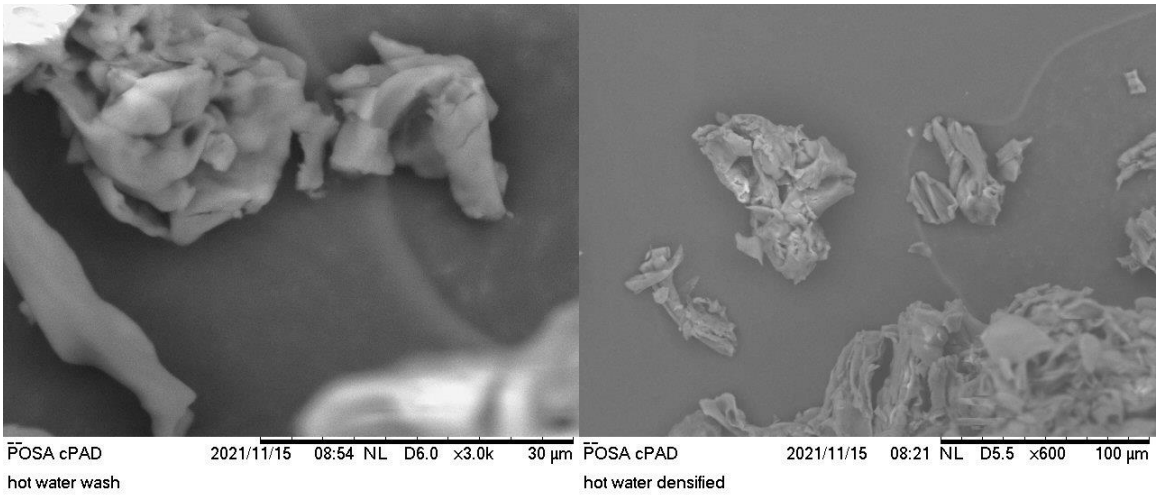

Figure S12. Scanning electron microscopy of posaconazole cPAD generated by precipitation into 0.001 N HCl and washed with 60 °C acidified water.